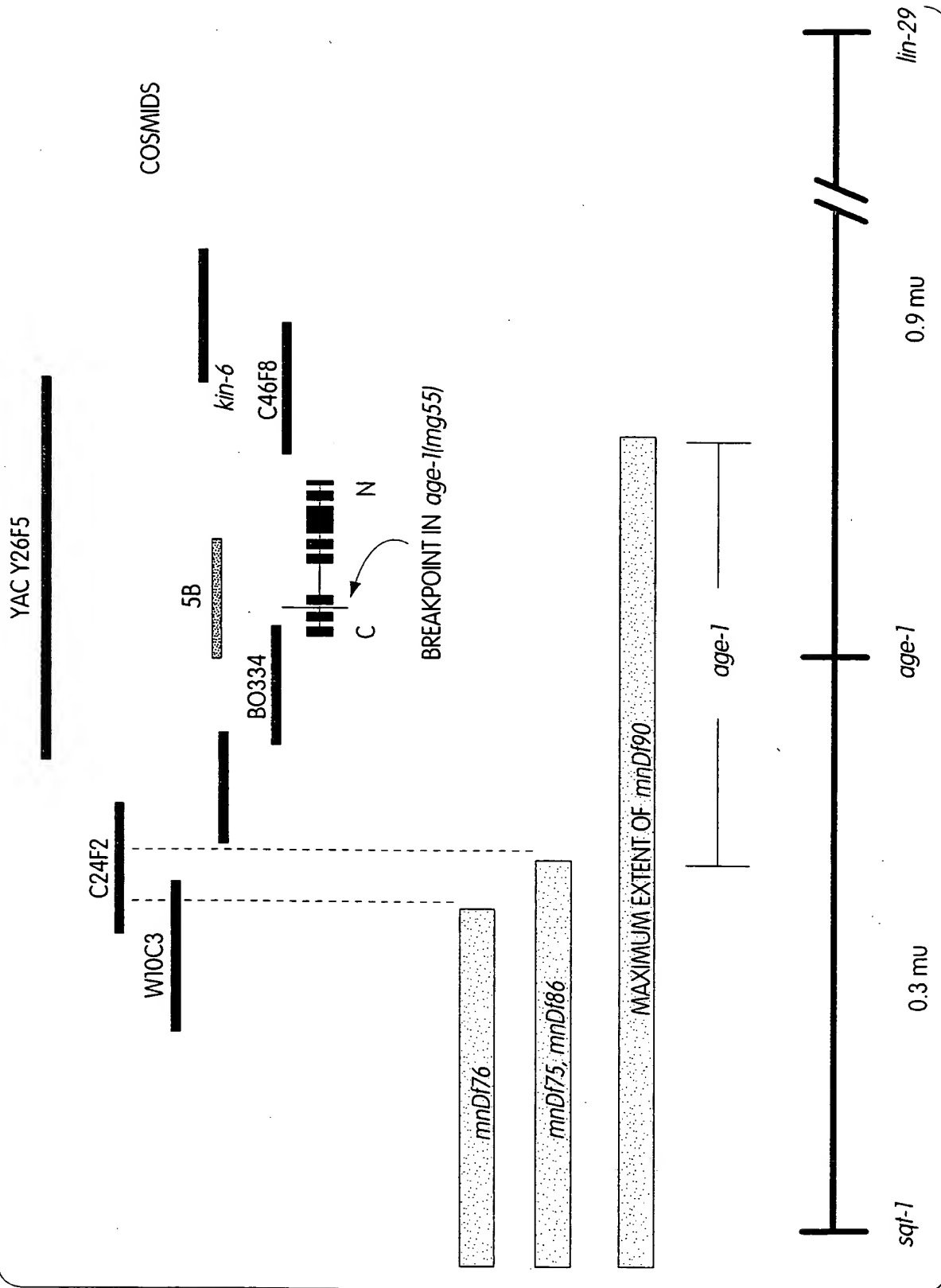


Fig. 1



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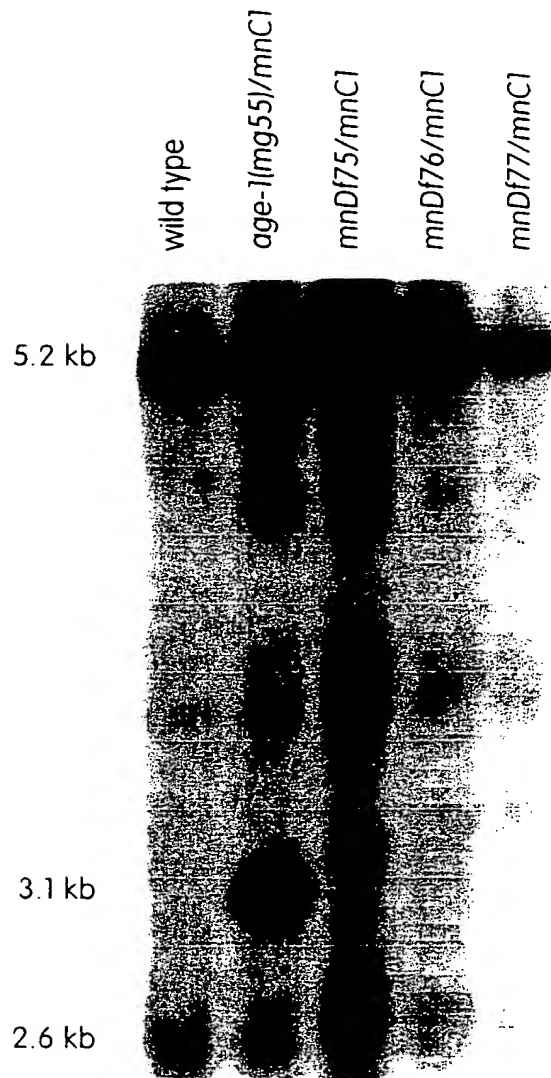
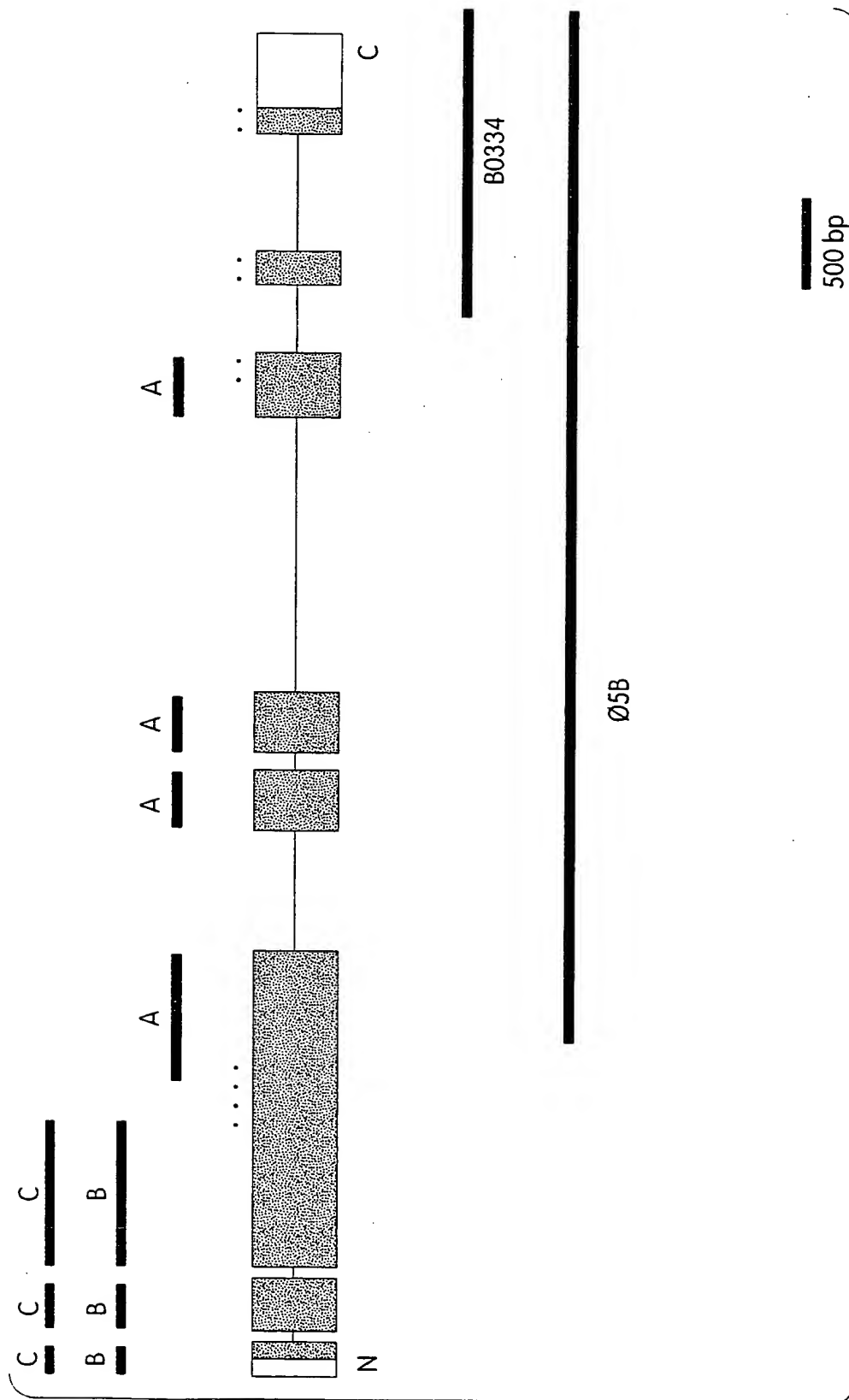


Fig. 2B

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Age-1	..MHVNILHPQLQTMVEQWMRRRPSLETENGKGS	LL	ENEGVAD	ITMC..	PFGEVISVVPWF	LANVR	66												
Alpha	.....	MPPRPSSGE	WG	HLMPRL	.....	VECLLPNGMI	VTLECLR	38											
Beta	.....	MCFSFIMPPAMAD	ILD	IWAVDSQ	ASDGS	IPVDFLLPTGI	YIQLEVP	48											
Gamma	MELENYKQPVVLREDNCRRRRRMKPRSAASLSSMET	PI	IEFVLPTSQRKCKSP	ETALL	HVAGHGNVE	EQMK	70												
Age-1	T..SLEIKLSDFKHQ	LFELIAPMKWGTYSVKPQD	YVE	....	RQLNNFGEIE	VI	FNDDQPLSKLELHGTFP	130											
Alpha	E....	ATLVTIKHEL	FFREARKYPLHQ	LLQDET	SYIEVS	....	VTQEAERE	EEFFDETRRLCDLRLFP	98										
Beta	E....	ATISYIKQML	WKQVHNYPFN	LLMDID	SYMEAC	....	VNQTA	VVELEDETRRLCDVRPFLPV	108										
Gamma	AQVWLRAL	ETSVAAD	EFYHRLGPHHFL	LLYQKKGQ	WY	EIYDKYQ	VVQ	TLDCRLRYWKA	THRSPGQ	133									
Age-1	MLFLYQPDGINRDKEL	MSDLSHCLGYS	LDKLEESL	DEELRQ	FRASLWARTKKTCL	TRGLEGT	SHYA	FPEE	200										
Alpha	LKVIEPVGNRE	EKILNREI	GFVIGMPVCE	FDMVKD	PEVQD	FRRNILNVCKE	AVDLR	..DLNSPHSRAMY	165										
Beta	LKLVTRSCDPGE	KLDSK	IGVLIGKGLHE	FDSLKD	PEVNE	ERRKMRKFSE	EKILSL	..VGLS	WMDWLKQ	174									
Gamma	IHLVQRHPPSE	ESQAE	QRQLTAL	IGYDVT	DVSNVH	DELEFTR	RRGLVTPRMAE	VASR	..D...PKLYAMH	198									
Age-1	QVLCVGE	SC...	PKDLES	KVKA	AKLSYQMFWRKR	KAEINGVCEK	MMKIQIEFNE	NETPKS	LLHTFLYEMR	267									
Alpha	VYPPNVES	SP	ELPKHIYNK	LDKGQII	VVIWIVSP	NNDKQKYT	....	LKINHDCVPE	EQVIAEAI	RKKT	229								
Beta	TYPPEH	EPS..	IPEN	EDKLYG	GKLI	VAVHF	....	ENCQDVFS	....	FQVSP	NNMPIKVNELAIQKR	231							
Gamma	PMV	....	TSKPL	PEYLWKKI	ANN	CIFIVIH	RSTTSQ	....	T....IKVSP	DDTPEGAILQ	SFFT	KMA	252						
Age-1	KLDVYD	TDD	....	PADEGW	FLQLAG	RTTE	VTNPDV	KLTSY	DGVRSE	LESYRC	PGFV	VRRQSLV	LKDYC	331					
Alpha	RSMLLS	SEQ	LKCVLEYQ	GKYLK	VC	GDEY	FL	EKYPL	SQYK	YIRSC	IMLGR	MPNLM	....	287					
Beta	..LTIHGKE	DEVSPYD	....	YVLQ	VS	GRVEY	VFG	DHPL	IQFYIR	NCVMNR	ALPHFI	....	283						
Gamma	KKKSL	....	MDIPES	QSEQ	DFVLR	VCGR	DEYLVG	ETPI	KNFQ	WVRHC	LKNGEE	IHVVT	....	306					
Age-1	RPKPLYEPHYVRA	HERK	LALD	VLSV	SIDSTPKQ	SKNSDMVMT	DFRPTAS	LKQ	VSL	WDL	DANLMT	RPVN	IS	401					
Alpha	.....	MAKES	LYSQLPID	SFTMP	SYSRRI	ISTATPYM	NGETS	TKSL	LVW	....	NSALR	IKILCAT	342						
Beta	.....	VECKIK	KMYEQEMIA	EAAIN	RNSSN	PLPLPP	PKKTR	ISHV	..	WENNN	PFQ	VLVKG	GN	341					
Gamma	.....	DTPPD	PALDEV	RKEEW	PLVD	DDCTG	VTGYHEQ	LTIHGK	DHES	VFTV	SLW	DCDRK	FRV	KIRGID	368				
Age-1	GFDFPADVDMY	VRI	EF	SVYV	CTILT	LASK	STT	KVNAQ	FAKWN	KEM	YTFD	LYMKD	MP	PSA	VLSIR	VLYGKV	470		
Alpha	YVNVN	IRDID	KTYV	RTGI	YHCGEP	LC	DNVNTQR	VPCSNPR	WNEW	NYED	IYTP	DLPR	ARL	CL	SIC	...	408		
Beta	..KLNTEET	VKVHV	RAGL	FHGT	TEL	LCK	TI	VSSE	VSGK	NDHI	WNEP	LE	FD	INIC	DLPR	ARL	CF	AVYAVLD	409
Gamma	TPVL	PHNT	DI	TVFV	EANT	QH	QOV	LC	QUR	THPK	PFTTE	EV	WNVW	LE	FT	IKT	DLPR	KGA	417

Fig. 3-1

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Age-1	KLKS.....EEFEVGVNMMSLTDDWRDELRLQGQFLHLMAPEPTANR.....SRIG515
Alpha	.VKGRKGAK.....EEHCPLAWGNINLFDYDTLVSGKMALNLW...PVPHGLEDLLNPIG460
Beta	KVKTKSTKTINPSKYQTIRKAGKVHPVAVNVTMVFDFKGLRTGDIILHSW...SSFPDELEMLNPMG477
Gamma	PALSSKASAESPSSESKGVRL.....LYXVNLILLIDHRFLLRGGEYVLLHMQISGKGEDQGSFNADKL501
Age-1	ENGARIGTNAAVTIEI...SSYGGRVRMPS...QQQYTYLVKHRSTWTETLNIMGDDYESCIRDPGYKK578
Alpha	VTGSNPNKE.TPCLELEF.DWFSSVVKFPDMSVIEEHANWSVSRAGFSYSHGLSNRLARDNELRENDK528
Beta	TVQTNPTTENATALHVKFPENKKQPYYPFPDKIIIEKAAEIASSDSANVSSRGG..KKFLP.....536
Gamma	TSATNPDKENSMSISI.LLDNYCHPIALPKHQPTPDPEGDRV.....RAEMPQL.....R551
Age-1	LOM.LVKKHESGIVLEEDQQRHVVMWRRYIQKEPDLILVLESELA FVWTDRENFSELYVMLEKW.....K642
Alpha	EQLRALCTRDPLSEITEQEKEKDFLWSHRHYCVTI.PEILPKLL.LSVKWNSTRDEVAQMYCLVQDW.....P591
Beta	.VLKEILDRDPLSQECENEMDLIWTLRQDCREIFPQSLPKLL.LSLKWNKLEDDVAQLQALLQIW.....P599
Gamma	KQLEAIIATDPLNPLTAEDKELLWHFRYESLK.HPKAYPKLF.SSVKMGQGEIVAKTYQLLARREEVWDQS619
Age-1	PPSVAALTLIGKRCTDRVTERK AVEKLENEQLSPVTFHLLILPLLQALKYEPRAQSEVGMMLLTRALCDY712
Alpha	PIKPEQAMELLDCNYPDPMVRSFAVRCLEKYLTDKLSQYLLIQLVQVLKYEQYLDNLLVRFLLKKALTQ661
Beta	KLPPREALLELLDFNYPDQYVREYAVGCLRQ.MSDEELSQYLLQLVQVLKYEPFLDCALSRFLLERALLGNR668
Gamma	ALDVGLTMQLLDCNFSDENVRAIAVQKLES.LEDDDLVHLLQLVQAVKKEEPPYHDSALARELLKRGLRNK688
Age-1	RIGHRLFWLLRAEIALRLRCDLKSSEYRRISLLMEAYLRG.NEEHKKIITRQVDMVDELTRISTLVKGM781
Alpha	RIGHFFFWHLKSEM.HNKTVSQ.....RFGLLLESYCRACG.MYLKHLNRQVEAMEKLINLTDILK...720
Beta	RIGQFLFWHLRSEV.HIPAVSV.....QFGVILEAYCRGSV.GHMKVLSKQVEALNKLKTLNSLIK...727
Gamma	RIGHFLFWFLRSEIAQSRHYQQ.....RFAVILEAYLRGCGTAMLHDFTOQVQVIEMLQKVTLDIKSLS752
Age-1	KDVATMK.....LRDELR..SISHKMMENMDSPLDPVYKLGEMIIDKAIIVGSAKRPMLLHWKNKNP840
Alpha	QEKKDETQKV..QMKFLVEQMRQPDFMDALQGFSLPNPAHQGLGNLRLLEECRIMSSAKRPLMLNWNENPDI788
Beta	LNAVKLNRAK..GKEAMHTCLKQSAyrealsDLQSPENPCVILSELVYEKCKYMDSKMKPLWLIVYNNKV795
Gamma	AEKYDVSSQVISQLKQKLENLQNSQLPESFRV...PYDEGLKAGALAIIEKCKVMAKKKPLWLLEFKCAD.818
Age-1	KSDLHLPPFCAMIFKNGDDLLRQDMLVLQVLEVMNDNIWKAANIDCCLNPPYAVLPMGEMIGIIEVVPNCCKTIF910
Alpha	MSELLFQNNNEIIFKNGDDLLRQDMLTLQIIRIMENLWQNQGLDLRMLPPYGCLSIGDCVGLIEVVRNSHTIM858
Beta	GEDSV...GVIFKNGDDLLRQDMLTLQMLRLMDLWKEAGDLRMLPPYGCLATGDRSGLIEVSTSETIA861
Gamma	PTALSNETIGIIFKHGDDLLRQDMLILQILRIMESIWETESLDLCLLPYGCISTGDKIGMIEIVKDATIA888

Fig. 3-2

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Age-1	Age-1	Age-1	Age-1
Alpha	Alpha	Alpha	Alpha
Beta	Beta	Beta	Beta
Gamma	Gamma	Gamma	Gamma
EIQVGTGFMNTAVRSIDPSFMMNKKWIRKQCGIEDEKKKSKKDSTKNPIEKKIDNTQAMKKYFESVDRFLYS980 QIQ.CKGGGLKGA.L.QFNSHTLHQWLKD.....KNKGEI.YD.....AAIDLEFTRRS900 DIQLNSSNVAAA.A.AFNKDALLNLKE.....YNSGDD.LD.....RALEEFFTLIS904 KIQ..QSTVGNTG.A.EKDEVLNHWLKE.....KSPTEEKFQ.....AAVEREFVYS930	CVGYSVATYIMGKIDRRHSDNMLMLTEDCKYVHIDFGHILGHGKTKLGIQORDRQPFILTEHFMTVIRSGKSV1050 CAGYCVATFILGIGDRHNSNIMVKKDDGQLFFHIDFGHFLDHHKKKFGYKRERVPFVLTQDFLIVISKGAQE970 CAGYCVASYVLGIGDRHSDNIMVKKKTGQLFFHIDFGHILGNFKSKFGIKRERVPFILTYYDFIHIQOQ..K972 CAGYCVATFVLGIGDRHNDNIMITETGNLFFHIDFGHILGNYSKSFGLGNKERVPEVLTDFLFFVMGTSGKK1000	DGNSHEIQKFCTLGVEAYEVMMNNRDLFVSLFTLMLGMELPELSTKADLDHLKKTLCFCNGESKEEFARKEFF1120 YTKTREFEFQEMCYKAYLAIRQHANLFINLFSMMLGSGMPELQSFDDIAVIRKKT.L.ALDKTEQEALEYFF1039 TGNTTEKFGFRQCCEDAYLILRRHGNLFITLFFALMLTAGLPELTSVKDIQYLKDSL.ALGKSEEEALKQEF1041 TS..PHEQKEQDLCVKAYLALRRHHTNLILLESMMMLMTGMPQLTSKEDIYIRDAL.TVCKNEEDAKKYE1067	AGIYEEAFNGSMSTKTNMLFHAVKHY... 1146 TKQMNDAAHHGGWTTKMDWIFHTIKQHALLN 1068 KQKFDEALRESWTEKVNMMAHTVRKDYRS 1070 LDQIEVWQRQRMDCAV..... 1083

Fig. 3-3

(SEQ ID NO:2)

```

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121 cgagaacgcc catcgctgga gaccgagaat ggcaaaggat cgctgctcct ggaaaatgaa
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301 cttttcgaat tgattgctcc gatgaagtgg ggaacatatt ccgtaaagcc acaggattat
361 gtgttcagac agttgaataa tttcggcgaa attgaagtta tatttaacga cgatcaaccc
421 ctgtcgaaat tagagctcca cggcactttc ccaatgcttt ttctctacca acctgatgga
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541 aaactggaag agagcctcga tgaggaactc cgtcaatttc gtgcttctct ctgggctcgt
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1141 agcacacca aacagagcaa gaacagtgc atggttatga ctgattttcg tccgacagct
1201 tcaactcaaac aagtttctact ttgggacctt gacgcgaatc ttatgatagc gctgtgaat
1261 atttctggat tcgatttccc ggccgacgtg gatatgtacg ttcgaatcga attcagtgt
1321 tatgtgggga cactgacgct ggcacaaaaa tctacaacaa aagtgaatgc tcaatttgca
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2041 cgtgtgattc gaaagtgtgc agtggaagaa ttgaatgagc agctgagccc ggtcacattc
2101 catcttttca tattgcctct catacaggcg ttgaagtacg aaccgcgtgc tcaatcggaa
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2221 tggctgctcc gtgcagagat tgctcgcttg agagattgtg atctgaaaag tgaagaatat
2281 cgccgtatct cacttctgat ggaagcttac ctccgtggaa atgaagagca catcaagatc
2341 atcacccgac aagttgacat ggttgatgag ctacacagaa tcagcactct tgtcaaagga
2401 atgcaaaaag atgttgctac gatgaaactg cgtgacgagc ttcgatcgat tagtcataaa
2461 atggaaaata tggattctcc actggatcct gtgtacaaac tgggtgaaat gataatcgac
2521 aaagccatcg tcctaggaag tgcaaaacgt ccgttaatgc ttactggaa gaacaaaaat
2581 ccaaagagtg acctgcacct tccgttctgt gcaatgatct tcaagaatgg agacgatctt
2641 cgccaggaca tgcttgcttc tcaagttctc gaagttatgg ataacatctg gaaggctgca

```

Fig. 4-1



2701 aacattgatt gctgtttgaa cccgtacgca gttcttccaa tgggagaaat gattggaatt  
2761 attgaagttg tgcctaattg taaaacaata ttcgagattc aagttggaac aggattcatg  
2821 aatacagcag ttcggagtat tgatccttcg tttatgaata agtggattcg gaaacaatgc  
2881 ggaattgaag atgaaaagaa gaaaagcaaa aaggactcta cgaaaaatcc catcgaaaag  
2941 aagattgata atactcaagc catgaagaaa tattttgaaa gtgtcgatcg attcctatac  
3001 tcgtgtgttg gatattcagt tgccacgtac ataatgggaa tcaaggatcg tcacagtgat  
3061 aatctgatgc tactgaaga tggaaaatat gtccacattg atttcggtca cattttggga  
3121 cacggaaaga ccaaacttgg gatccagcga gatcgtcaac cgttttattct aaccgaacac  
3181 tttatgacag tgattcgatc gggtaaactct gtggatggaa attcgcatga gctacaaaaa  
3241 ttcaaaacgt tatgctgcga agcctacgaa gtaatgtgga ataatcgaga tttgttcggt  
3301 tccttggttca ccttgatgct cggaatggag ttgcctgagc tgtcgacgaa agcggatttg  
3361 gatcatttga agaaaaccct cttctgcaat ggagaaagca aagaagaagc gagaaagttt  
3421 ttcgctggaa tctacgaaga agccttcaat ggatcatggt ctaccaaacc gaattggctc  
3481 ttccacgcag tcaaacta ctga

Fig. 4-2

# REPLACEMENT SHEET

Title: AGE-1 POLYPEPTIDES AND RELATED MOLECULES AND METHODS

Applicant(s): Gary Ruvkun et al.

Filing Date: August 7, 1997 Serial No.: 08/908,453

Customer No.: 21559

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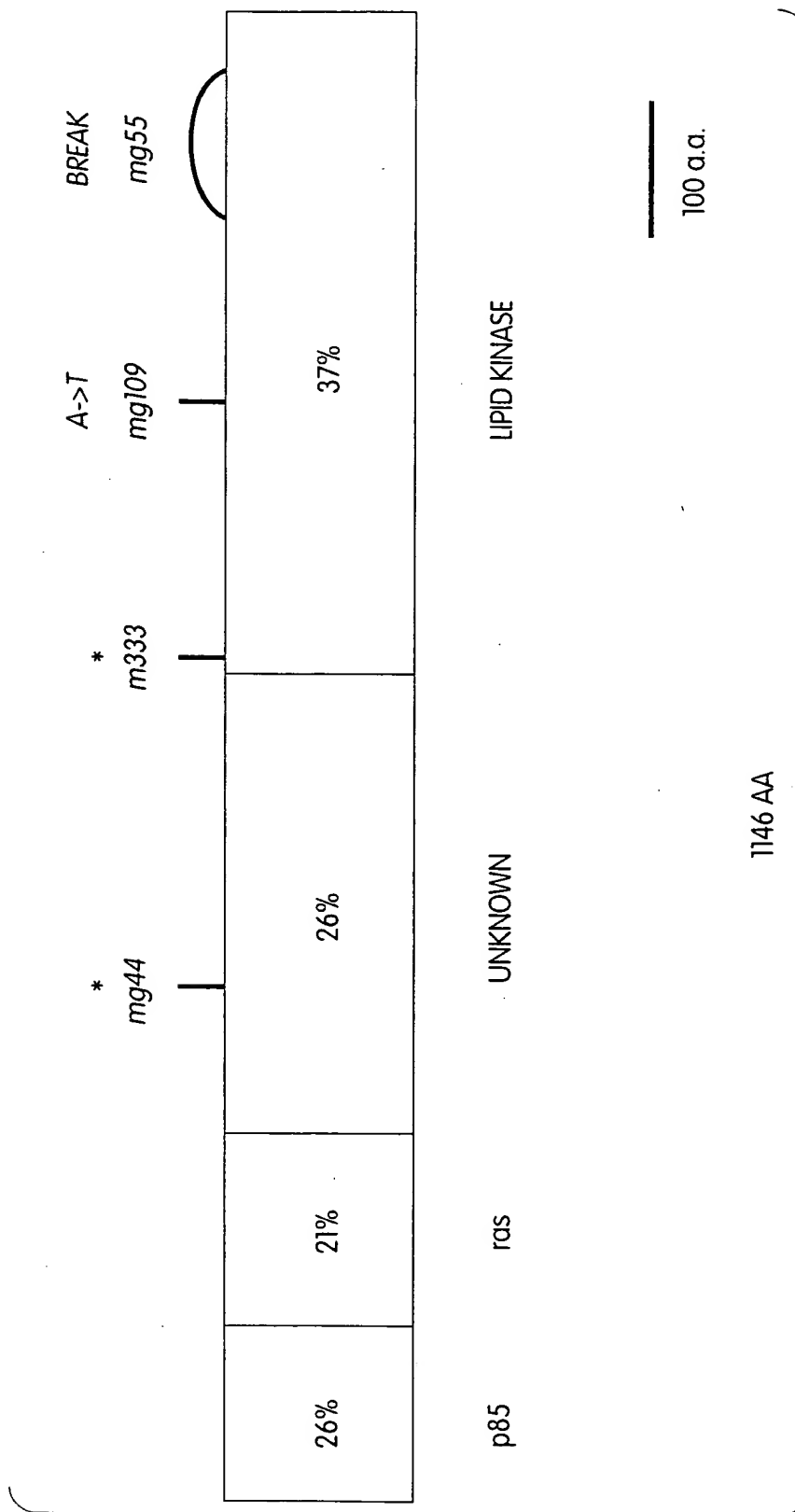


Fig. 5

REPLACEMENT SHEET  
Title: AGE-1 POLYPEPTIDES AND RELATED MOLECULES  
AND METHODS

Applicant(s): Gary Ruvkun et al.

Filing Date: August 7, 1997 Serial No.: 08/908,453

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101 FRQLNNFGEI  EVIFNDDQPL  SKLELHGTFP  MLFLYQPDGI  NRDKELMSDI
151 SHCLGYSLDK  LEESLDEELR  QFRASLWART  KKTCLTRGLE  GTSHYAFPEE
201 QYLCVGESCP  KDLESKVKAA  KLSYQMFWRK  RKAERINGVCE  KMMKIQIEFN
251 PNETPKSLLH  TFLYEMRKLD  VYDTDDPADE  GWFLQLAGRT  TFVTNPDKVL
301 TSYDGVRSLE  ESYRCPGFVV  RRQSLVLKDY  CRPKPLYEPH  YVRAHERKLA
351 LDVLSVSIDS  TPKQSKNSDM  VMTDFRPTAS  LKQVSLWDL  ANLMIRPVNI
401 SGFDFPADVD  MYVRIEFSVY  VGTLTLSKSK  TTKVNAQFAK  WNKEMYTFDL
451 YMKDMPPSAV  LSIRVLYGKV  KLKSEEFVVG  WVNMSLTDWR  DELRQGQFLF
501 HLWAPEPTAN  RSRIGENGAR  IGTNAAVTIE  ISSYGGRVVM  PSQGQYTYLV
551 KHRSTWTETL  NIMGDDYESC  IRDPGYKKLQ  MLVKKHESGI  VLEEDEQRHV
601 WMWRRYIQKQ  EPDLLIVLSE  LAFVWTDREN  FSLEYVMLEK  WKPPSVAAAL
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701 GMMLLTRALC  DYRIGHRLFW  LLRAEIALRL  DCDLKSEEYR  RISLLMEAYL
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851 MIFKNGDDL  QDMLVLQVLE  VMDNIWKAAN  IDCCLNPYAV  LPMGEMIGII
901 EVVPNCKTIF  EIQVGTGFMN  TAVRSIDPSF  MNKWIRKQCG  IEDEKKKSKK
951 DSTKNPIEKK  IDNTQAMKKY  FESVDRFLYS  CVGYSVATYI  MGIKDRHSDN
1001 LMLTEDGKYV  HIDFGHILGH  GKTKLGIQRD  RQPFILTEHF  MTVIRSGKSV
1051 DGNSHELQKF  KTLCVEAYEV  MWNNRDLFVS  LFTLMLGMEL  PELSTKADLD
1101 HLKKTLCFCNG  ESKEEARKFF  AGIYEEAFNG  SWSTKTNWLF  HAVKHY
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Fig. 6

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